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ABSTRACT OF THE DISCLOSURE

The present invention provides improved compatibility between optical transmitters of various data rates and WDM optical communication systems. In the present invention, optical remodulators are configured to receive an optical signal, separate the information from that optical signal into N information streams (where N is a whole number greater than or equal to 2), and place the information onto N optical channels within the channel plan of a WDM optical system. Alternatively, the present invention provides optical remodulators configured to receive N optical signals, combine the information from the N optical signals, and place the information onto a single output optical channel having a wavelength within the channel plan of a WDM optical system.